THIS IS THE REMARKS SECTION.

The present inventor wishes to acknowledge the Patent Examiner's objections in the US Patent Office 1st Action Letter dated December 13, 2007, in response to the original patent application dated November 12, 2003, with this Amendment A dated March 07, 2008, proposed corrections as follows:

Item:	Date:
USPTO DDP 510,016	Filing Date: 04/16/2002
USPTO PPA 60/425,180	Filing Date: 11/12/2002
Original USPTO Patent App. 10/706,662	Filing Date: 11/12/2003
USPTO Pat. Pub. No. 2004/0109059 A1	Pub Date: 06/10/2004
1st Office Action	12/13/2007
Amend. A	03/07/2008

GENERAL REMARKS:

The present applicant generally agrees with the patent examiner's general objections in the 1st Office Action dated, 12/13/2007 as qualified below in general remarks and also the additional, detailed remarks, with the noted minor exception cases as present applicant qualified.

The patent examiner has objected in his item 2) to the present applicant's submitted "Document Disclosure [Program (USPTO DDP)] Reference Letter," to consider his earlier filed, USPTO Document Disclosure Program (DDP), document Number: 510,016, filed upon April, 16, 2002, entitled: Hybrid Joint Photographer's Expert's Group (JPEG)/Moving Picture Expert's Group (MPEG), Security Video Camera, on the basis of a patent examiner, alleged 'illegible DDP Number,' on the form, and thus, the patent examiner's inability to retrieve the specified document from USPTO's electronic database storage.

The present applicant replies to patent examiner's item 2), that this USPTO DDP program filed 'initial documented dating' of 04/16/2002, is essential to his patent application's key early filing date, and that the present applicant can if requested, submit photocopies of all relevant USPTO DDP paperwork, including the original DDP paperwork (subject to a max. 2 year USPTO retention before document destruction, unless an additional DDP reference is filed with the USPTO), plus the "Disclosure Document Reference Letter" submitted with the USPTO Provisional Patent Application (PPA) of 11/12/2002 filing date.

The patent examiner has objected in his items 3) and 4), that the present applicant's submitted Information Disclosure Statement (IDS) is missing a MPEP required, brief summary of each prior art, invention, and is therefore non-admissible. This is present applicant acknowledged, and the present applicant waives his right to 'swear behind' the stated IDS patents, given that his further review of the relevant patents, shows them all to be highly irrelevant to his own present patent application.

The present applicant thanks the patent examiner for diligently searching the USPTO patent database to discover the end of 1st Office Action stated, additional highly relevant prior art US Patents of:

1). US Patent 7,023,913, David A. Monroe, Filed Upon 4-2006.

2). US Patent 6,833,863, Bruce P. Clemens, Filed Upon 12-2004.

3). US Patent 5,659,654, Nagasawa et al., Filed Upon 8-1997.

4). US Patent Application-2002/0030749, Nakamura et al, Filed Upon 3/2002.

The present applicant will briefly summarize and address below at the end of Detailed Remarks, these highly relevant patents in his Detailed Remarks section below.

As per the patent examiner's remaining, general comment in nature, MPEP violation complaint, regarding non-standard, technical abbreviation words used in the present applicant's patent specification, the present applicant agrees that non-industry

standard and non-academic standard technical words should not be used in a USPTO patent specification, but, should be replaced by general and standardized electrical engineering terms.

As per the patent examiner's remaining general comment in nature, MPEP violation general complaint, regarding 'too loose' claims language, failing to specifically point out what constitutes the relevant invention over prior art, the present inventor states that the offending claims language will be tightened up without overly narrowing the legal claims scope coverage, of the patent.

DETAILED REMARKS:

The patent examiner has noted in his item 1) that a pro se patent applicant is greatly disadvantaged in the complex legal environment of the USPTO often confusing to lay patent applicants, professional patent application process and complex patent prosecution process.

The present applicant replies that this statement requires no response, being a standard advisory warning.

The patent examiner has objected in his item 2) to the present applicant's submitted "Document Disclosure Reference Letter," to consider his earlier filed, USPTO Document Disclosure Program (DDP), document Number: 510,016, filed upon April, 16, 2002, entitled: Hybrid Joint Photographer's Expert's Group (JPEG)/Moving Picture Expert's Group (MPEG), Security Video Camera, on the basis of a patent examiner, alleged 'illegible DDP Number,' on the form, and thus, inability to retrieve the specified document from USPTO's electronic database storage.

The present applicant replies to patent examiner's item 2), that this USPTO DDP program filed 'initial documented dating' is essential to his patent application's key early filing date of 04/16/2002, instigated by the tragedies of 09/11/2001, and that the present applicant can if requested, submit photocopies of all relevant USPTO

DDP paperwork, including the original DDP paperwork (subject to a max. 2 year USPTO retention before document destruction, unless an additional DDP reference is filed with the USPTO), plus the "Disclosure Document Reference Letter" submitted with the USPTO Provisional Patent Application (PPA) of 11/12/2002 filing date.

The patent examiner has objected in his items 3) and 4), that the present applicant's submitted Information Disclosure Statement (IDS) is missing a MPEP required, brief summary of each prior art, invention, and is therefore non-admissible.

The present applicant replied to items 3) and 4), that this error is present applicant acknowledged, and that the present applicant waives his right to 'swear behind' the stated IDS patents, given that his further review of the relevant patents, shows them all to be highly irrelevant to his own present patent application

The patent examiner has objected in item 5), that claim 48 is of an improper dependent form "for failing to further limit the subject matter of a previous claim."

The present applicant replies to patent examiner's item 5), that there is an obviously missing claim 47) due to a non-sequential, claims numbering problem in the regular patent application (RPA):

10/706,662, of filing date: 11/12/2003. The present applicant wishes to re-number:

claim 48 to claim 47, made dependent upon claim number 46, vs. the previous dependency upon non-existant, claim 47:

claim 49 to claim 48.

claim 50 to claim 49.

claim 51 to claim 50, and

claim 52 to claim 51.

The patent examiner has objected in item 6), that a quoted paragraph from the 2nd paragraph of 35 USC 112, is not complied with, namely that the present inventor has failed to distinctly specify through exacting, legal claims language, the subject matter which the applicant regards as his invention.

The present applicant replies to patent examiner's item 6), that no response is required or patent examiner requested, to a quotation of USC or MPEP regulations.

The patent examiner has objected in item 7), that claims 1 - 6) and 48 - 52) are rejected under 2nd paragraph of USC 112 as paraphrased just above.

The present applicant replies to patent examiner's item 7), that the present inventor's claims are for: an entirely new as of the USPTO filing date of y. 11/12/2003 (USPTO DDP filing date of 4/16/2002), new art type of 100% un-attended in security video camera mode, very low-cost when mass produced, single front-end box, 100% digital, hybrid still picture and motion audio-video digital camera consisting of a front-end single low-cost, digital audio-video security camcorder box, designed for 100% un-attended operation in security video camera mode, for having in hybrid design both:

FRONT END OF AUDIO-VIDEO SECURITY CAMCORDER: A 2 count of prior art ("providing of" in a process claim), servo-motor controlled, auto-focus glass lenses, the first lens for wide angle motion audio-video capture, and the second lens for zoom telephoto (35 mm up to 170 mm) still video capture.

FRONT-END OF AUDIO-VIDEO SECURITY CAMCORDER SIGNAL 1: A prior art ("providing of" in a process claim) still video production circuit means, with 1st structural means of a CCD with sequentially attached analog to digital converter (ADC), with 2nd structural means of a newer and cheaper, CMOS vision chip produced, digitally compressed, said still video production circuit's output, furthermore, with still video production digital compression means, having 1st example prior art, structural means of JPEG 1, 2nd example prior art, structural means of JPEG 2000 (fast wavelet transform (FWT) based)), also having digitally interspersed still video amongst the motion

video, by using of inserted into both, per compressed digital frame, digital time-stamps (see present application's drawing FIG. 4).

NOTE: The MPEG IV specification supports for 'annotation coding' only a maximum digital data annotation rate of 1 [annotation digital encoding event/290 [milli-seconds] of MPEG input digital data stream] inserted 'digital annotation coding,' intended only for relatively low data rate, 'annotation digital notes (used in modern relational database binary large object ('blog') searches),' and never, MPEG committee originally intended, for 'relatively high data rate digital data insertion,' such as for every digital per MPEG frame, insertion of per frame, digital time-stamps or GPS satellite navigation positioning data, required in the present applicant's invention for digital frame re-assembly (see present application's drawing FIG. 4), thus necessitating the present inventor newly (present applicant's patent application part No. 206., plus proposed in claim 32), from the field of cryptography, 'silhouette technique (e.g. back-ground video clutter substitution in this case, using a pre-defined standard)' for per digital frame MPEG and JPEG digital time-stamp and GPS position data insertion), output to DSP's DRAM, and,

FRONT-END OF AUDIO-VIDEO DIGITAL CAMCORDER SIGNAL 2: A motion video production circuit means, with 1st structural example means

of a CCD with a serially attached analog to digital converter (ADC), 2nd structural example means of a newer and much lower-cost by 2 to 1 reduced IC count, CMOS vision chip, produced moving audio-video picture which then undergoes prior art, motion audio-video compression means, with 1st example prior art, structural means of MPEG IV, 2nd example prior art structural means of motion JPEG I, 3rd example prior art structural means of fast wavelet transform (FWT), digital audio-video compression, and possible, FWT audio compression (e.g. AAC (R))), also digitally compressed output to a DSP's DRAM.

BACK-END OF AUDIO-VIDEO DIGITAL CAMCORDER SIGNAL: Above described 2 count of front-end signals inside the digital camcorder box, producing output as mentioned above, which is digital signal processor (DSP), manipulated or byte shuffled, and digitally timed, into the desired, present applicant's newly proposed hybrid JPEG-MPEG audio-video standard as described in the new technical material section, for digital camcorder box output over a local area network (LAN).

FRONT END OF SECURITY WORKSTATION PC SIGNAL: The local area network (LAN) input a digitally compressed, hybrid still picture and moving audio-video picture standard means, with 1st example means being the present inventor's newly proposed, standard, called the hybrid JPEG-MPEG security video standard (with optional applications to the moving picture industry), which is simply the new technical material of the present invention, and

2nd example means being a prior art, R&D hybrid still picture and moving audio-video picture standard using fast wavelet transform (FWT) digital compression .

NOTE: The MPEG IV specification supports only a maximum digital data annotation rate of 1 annotation event per 290 [milli-seconds/MPEG stream] as described just above, similarly requiring the present applicant's borrowed from the field of cryptography, 'silhouette technique' for per digital frame . MPEG and JPEG digital time-stamp and GPS position data insertion.

This proposed standard can be easily 1 for 1, functionally up-graded to the newer and more efficient, prior art, R&D stage, fast wavelet transform (FWT), digital audio-video compression standards, so the present inventor wishes to 'teach, show, and instruct' regarding multiple standards utilization.

Furthermore, the PC security workstation is supportive of a back-end (digital local area network (LAN) and security workstation PC for digital through-put highly intensive 'suspect motion modeling, 'suspect tracking,' 'clutter rejection,' 'suspect or anomaly data logging', and for permanent digital recording of digitally compressed signals) of front-end box output.

The 100% un-attended operation, requires the auto-focus modes using active infra-red (active IR) (e.g. IR LED's) and also passive infra-red (passive IR), also supporting 'electronic pan and tilt' mode (e.g. auto-zoom and auto-contrast focus), with an optional claims embodiment, for the well known in modern robotics engineering, the difficult 'machine vision' problem, or focal moving subject, distance estimations (z-transform). The entire goal of the very low-cost mass produced, single box design, front-end audio-video camcorder, with hybrid still picture and moving audio-video signal generation in the 'front end' single box, is output of a present inventor, proposed new standard, called the BACK-END SIGNAL: new art, 'hybrid JPEG/MPEG Security Level S1/E1,' whereby S1 stands for security level 1 and E1 stands for entertainment level 1, security video and motion picture standard (with optional applications to the moving picture industry), which can be processed in standard MPEG IV compatible format, by any standard PC, acting as a security workstation for permanent data recording to PC based permanent digital storage.

To meet the patent examiner's objections of item 7), the present applicant suggests pending patent examiner approval, that he split the claims into 2 sections to match the above 2 types of signals:

CLAIMS SECTION 1: a utility claim for the 2 count of FRONT-END(S) OF DIGITAL CAMCORDER SIGNAL covering the 'front-end' single box of the hybrid still picture and moving picture video camera using older CCD type of integrated circuits (1 for 1 replaceable by newer and

cheaper, CMOS vision chips, which do not need a expensive Analog to Digital Converter (ADC) chip), and

CLAIMS SECTION 2: an independent process claim (using a prior art's, 'providing of said _____" and also a 'gerunding process claims' for the process steps) covering the BACK-END OF DIGITAL CAMCORDER SIGNAL into the LAN, the present inventor newly proposed, hybrid JPEG-MPEG audio-video compression standard (with options to moving picture production uses, and 1 for 1 up-grade to newer and more efficient fast wavelet transform (FWT) digital compression algorithms), transmitted by the 'front-end' box output into the digital local area network (LAN), going to a standard PC, for 'back-end' heavy-duty digital processing, and 'back-end' permanent digital recording of already compressed digital signals.

The patent examiner has objected in item 8), that claims 1 - 6) and 48 - 52) are rejected under 2nd paragraph of USC 112 as paraphrased just above, as being "narrative in form" and "replete with indefinite and functional or operational language," also "replete with grammatical and idiomatic errors."

The present applicant replies to patent examiner's item 8), that the present applicant does not wish to define the components level, prior art, hardware circuitry in too much detail (e.g. CCD IC's, e.g. CMOS vision chip IC's, e.g. feed-back servo control motored auto-zoom lenses, e.g. feed-back servo control firmware algorithms, e.g. motion

estimation firmware algorithms), without creating a much too easy to 'design around' patent claims, while on the other extreme, the present applicant using much too loose a claims definition used in stand-alone mode, with the 'new art,' technical material only used in supplementary mode, as a supplementary 'dictionary' to define the 'claims language' in further detail, will violate the 2nd paragraph of 35 USC 112. This is a judgment call with strict guide-lines provided by 2nd paragraph of 35 USC 112, and the various patent examiner's are granted a professional judgment as authorized USPTO officers, legal leeway in legal claims interpretation. To try and tread this delicate 'legal claims language' balance, the present applicant requests patent examiner permission, to re-write the submitted claims in the manner suggested in the present applicant's answer to the patent examiner's item 7) just above.

The patent examiner has objected in item 9), that "like" in claims 1, 2, 4, 5, 9, 10, 11, 14, 20, 25, 26, 31, 37, 38, 41, 42, 44, and 46 is a "relative term which renders the claim indefinite."

The present applicant replies to patent examiner's item 9), and also referring to a proposed claims re-write of the present applicant defined, BACK-END SIGNAL: of item 7), the present applicant wishes to substitute for 'MPEG-X like' the words of: if applicable, strict MPEG IV compliance, or else if applicable, "any prior art, audio-video digital compression standard" (e.g. already formalized MPEG-I, MPEG-II, MPEG-IV, MPEG-VII, standard, or close functional discrete cosine

transform (DCT) algorithm substitute, e.g. prior art, motion JPEG, e.g. a prior art as of filing date, R&D fast wavelet transform (FWT) non-standard, audio-video standard, given y. 2003 fast wavelet transform (FWT), used in internationally patented Fraunhofer Group of Germany audio only compression, licensed to the Four-C group and commercially sold as Advanced Audio CODEC or AAC (R) brand of audio only, digital compression), or else substitute for 'JPEG-X like' the words of a "any prior art, still picture video standard" (e.g. JPEG-I standard (discrete cosine transform (DCT)), or JPEG-2000 standard (fast wavelet transform (FWT))).

The patent examiner has objected in item 10), that "rapid" in claims 1, 20, 25, 37, and 41 is a "relative term which renders the claim indefinite."

The present applicant replies to patent examiner's item 10), that legal use of 'mincing words' is a well accepted claims writing provision used to every slightly widen claims language, without producing ambiguity, in the present applicant's interpretation of the MPEP regulations, that a patent claims section is certainly not the proper place to state a proposed, new art technical specification, with detailed specification definitions and statistical analysis of what constitutes 'normal' behavior. While the patent new art technical section should have some rough indications of a new specification's statistical 'normal' values, a complete specification is out of scope, and lacking this data in the present patent

application, a rough statistical 'normal' value analysis can be presented in the Office Action response, as an appropriate place to bring up this information.

Therefore, the present applicant in this 1st Office action response, rough 'normal' statistical operational ranges used to quantify the word 'rapid' for claims: 1, 20, 25, 37, and 41, referring to the closed loop servo-control mechanism for a smooth and accurate focal length movement, of the 2 count of independently servo-controlled, auto-focus lenses. The 'normal' statistical sampling rate of the sample and hold boxes (NOTATION: H-boxes) and also, gain-boxes (NOTATION: G-boxes), is nominally stated given a lack of a known 'reference system' with pre-selected prior art, DC motors and auto-focus lenses, as 100 [milli-seconds/sample]. A 'rapid' sampling rate would be on the order of 50 [milli-seconds/sample] useful when near a contrast, auto-focal point position, as indicated by a slightly blurred focal image as computed by the digital signal processor (DSP), activating a 'fine-tuning mode' with a much slower DC motor focusing action. An opposing, 'slow' sampling rate would be on the order of 200 [milli-second/sample], useful when far away from a contrast, auto-focal point position, as indicated by a greatly blurred focal image as computed by the digital signal processor (DSP) activating a 'course tuning mode,' with a much faster DC motor focusing action. NOTE: In lowest cost, prior art, passive auto-focus camcorder mode, there is no assumption of a 'machine vision' algorithm, executing a 'machine vision' algorithm to guesstimate focal object distance from camera or

depth of field, only a 2-D (x, y) contrast image and focal (x, y) point.

The patent examiner has objected in item 11), that "optimized" in claims 1, 6, 7, and 20, is a "relative term which renders the claim indefinite."

The present applicant replies to patent examiner's item 11), that legal use of 'mincing words' is a well accepted claim writing provision used to ever slightly widen claims language, without producing ambiguity, that a patent claim is certainly not the place to specify a technical specification, and that a patent new art technical section, can only briefly touch on new technical specification details. The present applicant will provide in this 1st Office Action response, a definition of the referenced claims word "optimized."

Therefore, the present applicant in this 1st Office action response, defining 'optimized' as used in claims: 1, 6, 7, and 20, referring to the prior art, wide-angle, motion audio-video producing lens and closed loop servo auto-focus, feed-back circuitry, and also the 100% independent (in front of the digital signal processor (DSP)), prior art, narrow-angle, still video producing lens and closed loop servo auto-focus, feed-back circuitry, as combined independently working set of: auto-focus lens, DC motor, and closed loop control, servo-feed-back assembly which meets the optical range

[kilo-meters], optical field of view [degrees|radians], and optical suspect tracking rates [degrees/second] of the specified security system (this can be a very wide range of operational performance parameters, which is not the domain of a patent's new art technical section, or else a patent's claims section).

The patent examiner has objected in item 12), that "high rate" in claims: 1, 27, 43, and 46, is a "relative term which renders the claim indefinite."

The present applicant replies to patent examiner's item 12), that legal use of 'mincing words' is a well accepted legal claims writing provision used to ever slightly widen claims language, without producing ambiguity, but, the present applicant provides in this 1st Office Action response, a minimal quantified value of "high rate," as referring in claims: 1, 27, 43, and 46 to an analog to digital converter (ADC) dedicated for use with the motion audio-video CCD, as being defined as commensurate with [illegible]-digital compression processing, by subsequently using: MPEG IV, and MPEG VII standard full-motion video rates of 30 [video frames/second] of the various MPEG II pre-specified, various video formats in N [pixels/video frame] times a given 'true color' color coded, resolution of 24 [bits/pixel]. For entirely different digital camcorder starting at y. 2004 $2,500 [US $/professional movie making MPEG IV, digital camcorder], being a typical 3 [CCD's/camcorder] cinema use to avoid the 'color blooming' problem of the y. 2004 below $1,000 [US

$/digital camcorder] Bayer filtered 1 [CCD/video camcorders], the ADC will have to support a non-digital compression, motion audio-video signal, digital read-out from the ADC, rate of only 23.976 [video frames/second] progressive video scan. Probably in an entirely different and much more expensive, professional digital camcorder, using 3 CCD's camcorder system (see just above for reasons), customary cinema use of MPEG II has used a much, much higher video format in 1920 x 1080 [pixels/video frame] ("1080i mode"), times a 'true color' color coded, resolution of 24 [bits/pixel]. This maximized, visual digital through-put data per given application market niche/cost niche, can easily be converted into a prior art, analog to digital converter's (ADC's) prior art, refresh rate [Hertz], and maximum reading binary word bit size [thresholding value].

The patent examiner has objected in item 13), that "low rate" in claims: 1, 20, 27, 37, 43, and 46, as being a "relative term which renders the claim indefinite."

The present applicant replies to patent examiner's item 13), that legal use of 'mincing words' is a well accepted claim writing provision used to ever slightly widen claims language, without producing ambiguity for "low rate" in claims: 1, 20, 27, 37, 43, and 46, as referring specifically to an analog to digital converter (ADC) dedicated to the still video CCD, but, the present applicant defines in this 1st Office Action response, "low rate" as a stressing test

value of a maximum typical user programmed rate of: 1 [still video frame] per 30 [MPEG II motion audio-video frames], or a max. 1.0 [Hertz = cycle/second]. The sample, JPEG I (DCT algorithm) video frame (basically being MPEG II only using MPEG II's intra-frames (I-frames, and ignoring the constant digital bandwidth goal of low-cost, 1 [Bayer filtered CCD/digital camcorder] consumer digital camcorders using DV Video (R) brand of DCT digital compression) at 1.0 [Hertz] digital compression, production rate, uses a 3-axis YCbCr color model (replacing the older 3-axis RGB color model), or 3 color layers per still video frame, at the maximum JPEG video frame size (basically a trade-off between max. video frame size, and post-digital compression, lossy video compression ratios), and 24 [bits/pixel] using 8 [bits/color code/color]. This maximized, visual digital through-put data per given application market niche/cost niche, can easily be converted into a prior art, analog to digital converter's (ADC's) prior art, refresh rate [Hertz], and maximum reading binary word bit size [thresholding value].

The patent examiner has objected in item 14), that "very low rate" in claims: 1, 20, 37, and 43, is a "relative term which renders the claim indefinite."

The present applicant replies to patent examiner's item 14), that legal use of 'mincing words' is a well accepted claim writing provision used to ever slightly widen claims language, without producing ambiguity for "very low rate" in claims: 1, 20, 37, and 43,

but, as referring specifically to the analog to digital converter (ADC) (more commonly referred to as a low-cost, binary encoder or digitizer vs. a more expensive single integrated circuit (IC) package, both being most modern, simple silicon compiler library circuits) dedicated to use with the 2 channels of analog audio, input from the 2 micro-phones on camcorder body's exterior, but, the present applicant defines in this 1st Office Action response, "very low rate" as [illegible] digital compression, MPEG II compatible, standard MPEG II non-digitally compressed, audio rates of: 16 [bits/audio sample] ("16-bit sound") at a 56 Kilo-Hertz sampling rate or 56 Kilo [samples/second].

The patent examiner has objected in item 15), that "much lower rate stream" in claims 14, is a "relative term which renders the claim indefinite."

The present applicant replies to patent examiner's item 15), that legal use of 'mincing words' is a well accepted claim writing provision used to ever slightly widen claims language, without producing ambiguity, "much lower rate" in claim 14, referring to the rate of digitally compressed motion audio-video production [Hertz] vs. the rate of digitally compressed still video production, but, the present applicant will provide in this 1st Office Action response, a defined value of "much lower rate" as a maximal value of sample only, JPEG I production as 1.0 [Hertz], vs. a maximum value of sample only, MPEG II production as 30.0 [Hertz] for non-cinema use, and a minimum

value of MPEG II production as 23.976 [Hertz] progressive scan, for cinema use, and a maximum value of MPEG II production as 30 [Hertz] progressive scan, for cinema use, and 60 [Hertz] interlaced scan, for cinema use.

The patent examiner has objected in item 16), that "for example" in claims: 1, 3, 4, 15, 17, 18, 20, 28, 32, 35, 35, 37, 44, 48, 50, and 51, "renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention [MPEP 2173.05(d)].

The present applicant responds to patent examiner's item 16), that legal use of 'functional means of embodiment' rendered concrete by an 'example structural means of embodiment,' is a well accepted claim writing procedure, used to give concreteness to a utility claim, without being overly broad in illegally claiming functionality without supporting physical structure of pragmatic implementation, and also without becoming overly narrow, and being too easy to 'design around' the claims, so, the present applicant will offer to provide in this 1st Office Action response, a more formal use of 'example structural means of embodiment' language.

The patent examiner has objected in patent examiner's item 17), that the present applicant agrees that non-industry standard and non-academic standard technical words should not be used in a USPTO

patent specification, but, should be replaced by general and standardized electrical engineering terms. Namely the use of "JPEG X" in claims: 1, 2, 10, 11, 20, 21, 27, 28, 1, 37, 38, 43, 44, and 46.

The present inventor responds to patent examiner's item 17), that he respectfully requests to change the frequently used, non-standard abbreviations of "JPEG X" above, to "a prior art still picture digital compression method, furthermore, with structural means exampled by the prior art, JPEG I standard."

The patent examiner has objected in patent examiner's item 18), that the present applicant has used non-standard lexicographic terms in the claims language. Namely the use of "MPEG X" in claims: 1, 2, 9, 10, 11, 14, 15, 20, 21, 27, 28, 31, 32, 37, 38, 43, 44, 46, and 48.

The present inventor responds to patent examiner's item 18), that he respectfully requests to change the frequently used, non-standard abbreviations of "MPEG X" above, to "a prior art moving picture audio-video digital compression method, furthermore, with 1st structural example means of the prior art, MPEG II standard, furthemore, with 2nd structural example means of the prior art, MPEG IV standard, and 3rd structural example means of the prior art, MPEG VII standard."

The patent examiner has objected in patent examiner's item 19), that the use of "gain-box" in claims: 1, 20, 25, and 41 is not clearly defined.

The present inventor responds to patent examiner's item 19), that many modern, standard engineering undergraduate textbooks in closed-loop servo-motor control theory (linear control systems theory) using modern digital computer interfaces (e.g. modern micro-controllers, e.g. modern digital signal processors (DSP's), e.g. modern micro-processors), routinely define a gain-box (NOTATION: G-box), (standard graphics symbol of a G-box), for a 'gain,' digital latch circuit across the digital computer I/O bus (or else memory mapped I/O), feeding an across the I/O bus, 'back-end' located, digital memory latch circuit, driving of analog circuits. The 'back end' composes only the 'back half' or 'back-end' of a modern digital control closed loop servo control circuit, typically located on a modern PC's plug-in I/O card, or an embedded micro-controller's across the I/O bus circuitry, with the 'back-end' being modern time-sampled 'gain' digital values, memory latched output from a digital micro-controller, a digital signal processor (DSP), or a digital micro-processor, having only I/O ports or memory mapped I/O as digital computer inputs/outputs. Also the digital computer digitally processes as closed-loop servo control theory, input data the 'front end' or across the I/O port sample and hold latch (H-box or hold box) digital input data (see patent examiner's inquiry item 20, just below). A very low-cost, micro-controller, executing a real-time,

motion control processing algorithm, and also, micro-processor or micro-controller output to a gain box (standard graphics symbol of G-box), the 'back half' or 'back-end' of a modern digital, closed loop servo-control circuit, used for directly controlling of a closed loop servo-motor function (e.g. A modern prior art, auto-focus camera zoom lens, has a 'sample and hold' front half circuit to digital memory latch (Hold-box or H-box) the current-time, lens physical focal position, a firmware based digital signal processor (DSP) computer program, to real-time compute the desired future-time position based upon the real-time current position read from the digital memory latch, and a back-end DSP written out also into an output digital memory latch (Gain-box or G-box), digitally latched desired direct analog DC motor controls for the auto-zoom lens's controlling motor assembly).

The patent examiner has objected in patent examiner's item 20), that the use of "hold-box" in claims: 1, and 20, is not clearly defined.

The present inventor responds to patent examiner's item 20), that many modern, standard engineering undergraduate textbooks in closed-loop servo-motor control theory (linear control systems theory), routinely define a 'front-end' or front-half of a modern digital linear control circuit (see patent examiner's item 19 just above, for the 'back-half' or gain processing (NOTATION: G-box)), or the 'front-end' sample and hold-box (NOTATION: H-box), (standard graphics symbol

of a H-box), for a sample and hold digital latch circuit, with modern time-sampled input into a micro-processor or micro-controller, executing a real-time, motion control processing algorithm, and also, micro-processor or micro-controller output across the I/O bus or memory mapped I/O to the 'back-half' of the linear digital control circuit, being a gain box (NOTATION: G-box), (standard graphics symbol of G-box), for controlling of a closed loop servo-motor function. e.g. A modern prior art, auto-focus camera zoom lens, has a 'sample and hold' 'front half' digital linear control circuit, to digital memory latch (Hold-box or H-box), inputting across the I/O port to the digital computer of: the current real-time, t [secs], actual last status lens physical focal position (focal length is typically initially unknown, and focus z-axis depth of focal subject is typically initially unknown or even never known), a firmware based digital computer (e.g. micro-controller, e.g. digital signal processor (DSP), micro-processor) digital computer firmware program executed in real-time processing of the desired future-time, t [secs], future lens auto-focus position, based upon the real-time current position read from the digital memory latch of the H-box, and a back-end digital computer written out to the G-box, also into an output digital memory latch (Gain-box or G-box), digitally latched desired direct analog DC motor controls for the auto-zoom lens's controlling motor assembly).

The patent examiner has objected in patent examiner's item 21), that the use of "the H-boxes" in line 16 of claim 1, has insufficient antecedent basis for this limitation in the claim.

The present inventor responds to patent examiner's item 21), that many modern, standard engineering undergraduate textbooks in closed-loop servo-motor linear digital control systems theory (linear control systems theory), routinely define a hold-box (NOTATION: H-box), (standard graphics symbol of a H-box), for a sample and hold digital latch circuit, with modern time-sampled input into a micro-processor or micro-controller, executing a real-time, motion control processing algorithm, and also, micro-processor or micro-controller output to a gain box (standard graphics symbol of G-box), for controlling of a closed loop servo-motor function (e.g. digitally latched desired direct DC motor controls for the auto-zoom lens' DC motor).

The patent examiner has objected in patent examiner's item 22), that the use of "software algorithm" in line 4, of claim 5, has insufficient antecedent basis for this limitation of the claim.

The present inventor responds to patent examiner's item 22), that the present applicant's new technical material, used as a dictionary for the claims language, has numerous references to prior art, 'software algorithms' for "suspect computer motion modeling" in various new art, technical section paragraphs of this present applicant's invention, and also prior art, well known in prior art of the published technical literature of US DOD applications for infrared (IR) tracking (e.g. M1 Model A2 Abrahms tank, IR sight

canon, e.g. Forwards Looking Infrared (FLIR) vision systems for modern jet aircraft, e.g. Forwards Looking Infrared (FLIR) vision systems for ground troops trying to see through combat haze and smoke), prior art, US DOD algorithms for 'infrared (IR) back-ground clutter rejection,' and the so-called prior art, very well known in engineering robotics as a very difficult and costly, engineering problem, 'machine vision problem' from modern robotics, or accurate depth of field [z-axis, in feet] estimates to focus subject.

The patent examiner has objected in patent examiner's item 23), that the use of "the analog to digital converter" in line 1, of claim 8, is un-clear which of 3 specified analog to digital converter's is referred to.

The present inventor responds to patent examiner's item 23), that "the analog to digital converter" in line 1, of claim 8, later referring to "video rows ()macro-blocks)" is obviously referring to the MPEG II, and MPEG IV standard language of motion audio-video processing, and thus, refers to the "relatively high speed" analog to digital converter (ADC).

The patent examiner has objected in patent examiner's item 24), that the use of "visually unimportant information" of claims 9 and 10, is un-clear what apparatus determines this judgmental value.

The present inventor responds to patent examiner's item 24), that the present applicant's use of the words "visually unimportant information," vs. 'visually important information' as determined 100% by digital computer algorithm, refers to the whole key to the MPEG I, MPEG IV, MPEG VII, and JPEG I standards (JPEG 2000 uses a fast wavelet transform (FWT) algorithm), of a quantitative discrete cosine transform (DCT) algorithm, used to fully machine automatically make this qualitative judgment, by locating 'stray pixels' of color corresponding to very high frequencies of DCT values [Hertz], machine algorithm assigned as 'visually unimportant,' visual patterns, to be lossy digitally compressed out. Conversely, also by locating 'solid blocks of color' corresponding to very low frequency of DCT values [Hertz], machine algorithm assigned as 'visually important' patterns, to be lossy digitally compressed in. The present applicant clearly indicates in claims 9 and 10, clarification from prior art, MPEG standard conventions and MPEG committee defined language, a MPEG I, MPEG II, or MPEG IV, digital compression algorithms.

NOTE: Prior art to y. 2003, commercial digital camcorders typically on low-end models do not use MPEG II, or MPEG IV, but, use DV video (R) digital compression, designed for constant bit-rate or constant digital band-width [bits/second] production (producing a very high incidence of 'blocking artifacts' for any very high rate of panning motion, or very high rates of local subject motion such as birds in flight or real-time sport's shots across an active back-ground scene), is done to minimize digital bandwidth, while using a low-cost typical y. 2004 $15.00 [US $/1C

(in mass quantities)] digital signal processor (DSP), without requiring a very high cost or y. 2004 $500 [US $/IC (in mass quantities)] Advanced RISC micro-processor (ARM). The low-cost commercial digital camcorders using DV (R) digital compression, have a having a post-recording, 'play-back' mode used after camcorder user, giving digitally DV video (R) un-compressed LCD displays, 1 of N still video user selection, and then still-frame digital compression using JPEG I 'video capture mode,' onto a plug-in or chewing gum sick like EEPROM memory stick module. The JPEG I digital compression, is very common in mathematical nature to DV video (R) brand of video digital compression, both being a discrete cosine transform (DCT) mode, but, are subtly different implementations which can be handled by down-loadable initialization or run-time, tables, commonly prior art, used for commercial digital camcorders.

The patent examiner has objected in patent examiner's item 25), that the use of "security level 1" in lines 3 and line 4, of claims: 14 and 31, has insufficient antecedent basis.

The present inventor responds to patent examiner's item 25), that the present applicant's use of the words "security level 1," is part of the name of the present applicant's new art standard, only grossly defined by this patent application (a full technical specification is certainly a book-length document, which does not belong in a legal patent claims section, nor in full detail in a patent's new technical material section), and basically proposed by the new technical

material of this patent application (see item 7). BACK-END SIGNALS: defined)), a new hybrid JPEG-MPEG audio-video digital compression standard intended for remote, un-attended security video camera and also Hollywood movie making, present applicant called the, "MPEG Audio-Video Standard, level S1/E1 format," standing for security level 1, and also entertainment level 1.

The patent examiner has objected in patent examiner's item 26), that the use of "entertainment level" in lines 5 of claims: 14 and 31, has insufficient antecedent basis.

The present inventor responds to patent examiner's item 26), that the present applicant's use of the words "entertainment level," is part of the name of the present applicant's, new art standards specification, proposed by the new technical material of this patent application (see item 7). BACK-END SIGNALS: defined)), a new hybrid JPEG-MPEG audio-video digital compression standard intended for remote, un-attended security video camera and also Hollywood movie making, present applicant called the, "MPEG Audio-Video Standard, level S1/E1 format," standing for security level 1, and also entertainment level 1.

The patent examiner has objected in patent examiner's item 27), that the use of "and does micro-processor bus latch to discrete

analog circuitry lens motion." of claims: 6 and 7, is indefinite as the patent examiner cannot understand the claim.

The present inventor responds to patent examiner's item 27), that the present applicant's use of the words "and does micro-processor bus latch to discrete analog circuitry lens motion.", clearly indicates from the present applicant's, submitted voluminous new technical material, used as data dictionary to further define the claims language in detail, that a standard prior art, closed loop servo-control glass lens control program is referenced. The present applicant will offer to clarify the claims language by more formal use of the special claims writing legal words of: "a", "said", and "the", as well as re-writing the claims by the organization of item 7), hopefully making the claims clearer to read.

The present applicant offers to retract and replace with standard engineering terms, all custom lexiconography dealing with digitally compressed data packets of:

"COMMOD" changed to "a standard digital compression circuit (e.g. discrete cosine transform (DCT) based MPEG (R) IV or MPEG family, e.g. DCT based motion JPEG, e.g. fast wavelet transform (FWT) based audio-video algorithm), followed by a standard modulation circuit (e.g. FM modulator)",

"DEMODDEC" changed to a "demodulation circuit (e.g. FM demodulator), followed by a digital decompression circuit (e.g. discrete cosine transform (DCT) based MPEG (R) IV, e.g. DCT based motion JPEG, e.g. fast wavelet transform (FWT) based audio-video algorithm)".

"COMSTOR" changed to "a standard digital compression circuit (e.g. discrete cosine transform (DCT) based MPEG (R) IV, e.g. DCT based motion JPEG, e.g. fast wavelet transform (FWT) based audio-video algorithm), followed by a standard digital memory storage circuit (e.g. Row Address Strobe/Column Address Strobe (RAS/CAS) SD-DRAM or EEPROM address strobing)",

"READSTOR" changed to "a standard digital memory reading circuit (e.g. Row Address Strobe/Column Address Strobe (RAS/CAS) SD-DRAM or EEPROM address strobing) for reading of compressed digital audio-

video data, followed by a standard digital memory storage circuit (e.g. Row Address Strobe/Column Address Strobe (RAS/CAS) SD-DRAM or EEPROM address strobing)".

To overcome the patent examiner's specific objections of 'non-specific claims' in 'narrative form' using 'functional and operational language,' the present applicant wishes to amend the claims language of original claims: 1 - 52, without overly narrowing the legal claims scope of the patent, beyond what is patent law legally denied by the IDS established, patent examiner's "Notice of References Cited," and all world-wide publications, prior art of the field, by pending patent examiner's approval, adopting the present applicant's proposed new claims structure of item 7).

The present applicant thanks the patent examiner for diligently searching the USPTO patent database to discover the end of 1st Office Action stated and also patent examiner's 'Notice of References Cited Form,' referenced, additional highly relevant prior art US Patents of:

PATENT 1). US Patent 7,023,913, David A. Monroe, Issued Upon 4-2006.

PATENT 2). US Patent 6,833,863, Bruce P. Clemens, Issued Upon 12-2004.

PATENT 3). US Patent 5,659,654, Nagasawa et al., Issued Upon 8-1997.

PATENT 4). US Patent Application-2002/0030749, Nakamura et al, Published Upon 3/2002.

The present applicant will briefly summarize and address these highly relevant patents:

PATENT 1): The Monroe patent issued upon 4-2006, is a combined JPEG and MPEG security audio-video camera system, intended for security video camera purposes. The mostly older analog audio-video security cameras, are analog audio-video cable plugged into a central concentrating digital processor box, having analog to digital

converters (ADC's), which are then attached to prior art, digital multiplexers inside of the central concentrating digital processor box, also having a back-end, Local Area Network (LAN) interface, which in turn connects to a digital recording device. An assortment of prior art to y. 2006, audio-video cameras are supported including older, add-on or post-manufacturing supported, prior art, analog audio-video cameras, with analog audio-video output cables, needing eventual concentrating digital processor box's located, analog to digital conversion (ADC) circuits, and digital audio-video compression circuits, audio-video signal processing. Also several older analog audio-video cameras are analog audio-video cable fed into a newer art, front-end digital concentrating box, the front-end digital concentrating box as depicted in relevant FIGURES, having its own analog to digital converters (ADC's), digital multiplexer circuits, digital compression circuits, and front-end located digital frame merging and channel sequencing digital processing algorithms, also with a back-end of front-end digital box, digital multiplexer output to the previously mentioned central digital processor concentrating box.

The present applicant states that this is an older fully un-attended, add-on security analog video camera system components, integrated by using older, add-on components based mostly analog design of non-PC architecture components, of relatively much higher cost and much higher spatial volume requirements, vs. the present applicant's very low-cost, PC architecture based components, using mass producible, single count of 'front-end box,' of a 100% un-

attended, electronic 'pan and tilt mode,' hybrid JPEG-MPEG audio-video security camera, having internal single front-end security box, digitizing, digital compression, and LAN transmitting of: digitally compressed audio, and digitally compressed interspersed video signals at once (proposed new MPEG format, for security video cameras use at 30 Hertz frame rates, plus much higher resolution and much slower, cinematic 20 Hertz frame rates of Hollywood motion picture filming, also amenable to newer late 1990's, fast wavelet transform (FWT) digital audio-video compression), in a hybrid design philosophy, with a 100% modern digital 'front-end box' design, and connected by modern PC based LAN to a back-office based PC, security PC work-station for all digital recording.

The present applicant notes in the Monroe patent, a very odd non-standard meaning of the word 'multiplexor,' differing from the initially submitted new art, technical material, the FIGURES, and the final context of 'multiplexor' as used in the claims, whereby the former refers to a standard digital electrical engineering, method of digital multi-plexiing together multi-sourced digital video signals over a digital multi-plexed bus, and the latter refers to what is more traditionally referred to as a digital 'frame merger/sequencer' unit, which is a digital processor based unit. This may be an issue regarding legal interpretation of claims coverage.

PATENT 2): The Clemens patent issued upon 12-2004, is a prior art, commercial digital camcorder, connected by prior art, commercial USB

serial bus connector, to a prior art, PC, and the use of new art, innovative PC software to PC micro-processor, process by PC software, either still video, and or moving audio-video. Combined JPEG and MPEG security audio-video camera system, intended for home entertainment purposes.

The present applicant states that the Clemens patent is only somewhat related to his own patent application.

PATENT 3): The Nagasawa et al patent issued upon 8-1997, is an older analog camcorder design, using a hybrid design for each analog camcorder of a single, 100% analog output CCD, outputting analog 3-axis, YCbCr color model in NTSC audio-video analog signal (subject to the 2 chrominance colors of Cb and Cr, extreme band-gap analog filtering as specified in the NTSC spec, with attendant loss of color intensity and color detail), combined with a simultaneously outputted from the digital signal processor (DSP) intended for much greater color intensity by avoiding the color analog NTSC signal's chrominance color band-gap filtering, output of a simultaneous, selective, 3-axis RGB still photo (or else, a 3-axis CMYK printer color model, whereby black (K) is a redundant 3-axis color needed for avoiding color mixing of wet inks to create perfect black, a well known difficult printing industry problem) for a bottom of camera, built-in, mini-digital printer output, attached to the analog camcorder or for 'instant still picture' camcorder printing.

The present applicant states that the Nagasawa patent is for a different invention environment that his own present patent application.

PATENT 4): The Nakamura patent application of USPTO patent publication date of: 3-2002, is a type of consumer digital camcorder, having an intentionally used, combined, 2 older types of 100% analog output CCD (older analog 'bucket-brigade' analog computer memory, subject to analog video line level timing problems, start of video frame timing problems, and also 'color blooming effects' of over-saturated intensity), (needing a back-end expensive, Analog to Digital Converter (ADC)), used in deliberate hybrid design, along with a simultaneously used, newer 100% digital CMOS vision chip design (with 100% digital output of digital pixel based full video frames), to digital signal processor's (DSP's) implemented 'sample and hold' algorithms for temporary, dynamic random access memory (DRAM) storage, DSP implemented digital compression algorithms, and then USB serial bus connected permanent plug-in and modular, DV-video tape permanent storage. The Nakamura patent's stated advantage of the hybrid and deliberate by design, simultaneous use of both 2 types of older 100% analog output, CCD integrated circuits, plus 1 newer 100% digital output, CMOS vision circuit, is to minimize the inter-framing timing problems of the older 100% analog output, CCD circuits. The DSP has a DSP algorithm computed, highly automated mode of: auto-focus of zoom lenses, auto-aperture controls (auto-f-stop), auto exposure settings, giving both digital computer calculated 'recommended manual setting's' for the video camcorder

user's, back of camcorder positioned, LCD display, and also fully automatic mode of digital camcorder settings.

The present applicants states that the Nakamura patent is for a different type of invention environment, than his own present patent application.

Very Respectfully Yours,

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